ARGUS MOUNTAINS KANGAROO RAT
Dipodomys panamintinus argusensis

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Management Status: Federal: None
California: None

General Distribution:

The Argus Mountains kangaroo rat is one of five subspecies of *D. panamintinus* currently recognized (Hall, 1981; Intress and Best, 1990; Williams et al., 1993). *D. p. argusensis* occupies a limited range in the Argus Mountains of Inyo County, California. Of the other subspecies, *D. p. mohavensis* is the most widespread, and occupies much of the western half of the WMPA. The subspecies *leucogenys* intergrades with *mohavensis* in the Owens Valley area and ranges north into Nevada (Hall, 1946). The subspecies *panamintinus* occupies a limited range just northeast of the WMPA in the Panamint Range. The subspecies *caudatus* is widely separated from all other subspecies and occupies the Providence Mountains east of the WMPA. Some authors have suggested that the Argus Mountains kangaroo rat is isolated from other subspecies of *D. panamintinus* (Hall, 1981; Williams, 1986; Intress and Best, 1990), while others consider the range of this subspecies to be contiguous with that of *D. p. mohavensis* (Zeiner et al., 1990). *D. p. argusensis* is the only subspecies of the Panamint kangaroo rat for which the karyotype is unknown (Patton and Rogers, 1993), and additional genetic investigation is warranted.

Distribution in the West Mojave Planning Area:

The Argus Mountains kangaroo rat (*D. p. argusensis*) is known only from the vicinity of Junction Ranch in the Argus Mountains (Huey, 1945), on China Lake Naval Air Weapons Station, which is within the WMPA. This location is on the western slopes of the Argus Range, approximately 3 miles SSW of Maturango Peak. No subsequent studies have defined its distribution further than the type locality.

Natural History:

No studies regarding the natural history of the Argus Mountains kangaroo rat have been conducted and much of the following information is gathered from accounts of other subspecies. *D. panamintinus* is medium-sized for the genus, averaging 292 and 288 mm (11.5 and 11.3 inches) in total length for males and females respectively (Intress and Best, 1990). It has five toes on the hind foot. The tail averages 140% of the length of the head and body, is strongly bicolored, and is heavily crested. Dorsal coloration of the body is ashy-gray to brown tinged with cinnamon, while ventral coloration is white. Males are larger than females in most external and cranial measurements (Best, 1993). *D. panamintinus* can be distinguished from *D. deserti*, with which it may by sympatric, by smaller size and five rather than four toes on the hind foot. It can be distinguished from sympatric *D. merriami* by larger size, darker pelage and five rather than four toes on the hind foot, and from *D. microps* by rounded- rather than flat-surfaced incisors. The Panamint kangaroo rat follows a strongly seasonal pattern of reproduction, with a peak in early spring (Laabs et al., 1997).

Habitat Requirements:

The type specimen of *D. p. argusensis* was collected in 1931 at 1745 m (5725 feet), but no specifics are given concerning habitat associations at this locality. Ecologically, the subspecies is expected to be most similar to *D. p. panamintinus* and *D. p. mohavensis*, which inhabit creosote scrub, saltbush scrub, joshua tree woodland and juniper woodland habitats (Intress and Best, 1990). They forage on seeds of forbs, shrubs and grasses (Zeiner et al., 1990) and on the green leaves of forbs (Jameson and Peeters, 1988). The Panamint kangaroo rat generally occupies areas with coarse sand or gravelly soils (Intress and Best, 1990).

Population Status:

Recent data concerning the distribution and status of the Argus Mountains kangaroo rat are lacking. Live-trapping in suitable habitat at the type locality and in the general vicinity is needed to determine the current status of the subspecies. Genetic analysis to establish taxonomic relationships with other subspecies of *P. panamintinus* is also necessary.

Threats Analysis:

The Argus Mountains kangaroo rat occupies a very limited range and is therefore vulnerable to human-related impacts as well as natural stochastic events. The entire range of the subspecies is within the China Lake Naval Air Weapons Station, so public access is limited in the area. Potential threats to *D. p. argusensis* include military operations and recreational use by base personnel. Analysis of human activities in the vicinity of the type locality should be reviewed to determine the degree of these potential threats. Wild horses and burros may pose a threat by removing shrub cover, collapsing burrows and competing for forage.

Biological Standards:

The degree of vulnerability of this subspecies depends in part on the size of its range and the frequency of human impacts. Trapping studies near the type locality and in the potential zone of contact with *D. p. mohavensis* is necessary to clarify current distribution and status. In addition, its habitat requirements need to be more clearly defined. Due to its very small range, conservation efforts must focus on the type locality. Military operations in this area should be reviewed to determine their effects on the subspecies.

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